AMENDMENTS TO THE CLAIMS:

1. (Previously Presented) A method of configuring a first network device for connection to a communications network subnet having a second network device, the method comprising:

determining, with a configuration determination module of the first network device, configuration attributes for operably connecting the first network device to the subnet based on configuration information for the subnet detected by the first network device; and

configuring the first network device, with an autoconfiguration module of the first network device, according to the configuration attributes so that the first network device is operably connected to the subnet.

2. (Original) A method according to claim 1, wherein configuring the first network device is performed automatically by the autoconfiguration module.

3. (Original) A method according to claim 1, wherein configuring the first network device is performed as a guided process in which the autoconfiguration module interacts with a user and presents to the user suggested configuration choices based on the configuration attributes.

4. (Original) A method according to claim 3, wherein the suggested configuration choices are accompanied by an explanation to the user as to why the configuration choices have been suggested.

5. (Previously Presented) A method according to claim 1, wherein the configuration attributes comprise an Internet Protocol (IP) subnet mask determined based upon the configuration information unique to the subnet and derived from passively listening to router control traffic detected by the first network device at interfaces between the first network device and the subnet.

6. (Original) A method according to claim 1, wherein the configuration attributes comprise at least one of Dynamic Host Configuration Protocol (DHCP) forwarding data and DHCP server address.

7. (Previously Presented) A method according to claim 1, wherein the configuration attributes comprise virtual local area network (VLAN) information including tag identifications, types, protocols, addresses, and port-to-VLAN mappings.

8. (Original) A method according to claim 1, wherein the configuration attributes comprise at least one of Spanning Tree Group information, Simple Network Management Protocol (SNMP) server addresses, Open Shortest Path First (OSPF) timer information, Routing Information Protocol (RIP) broadcast timer information, and Virtual Router Redundancy Protocol (VRRP) information.

9. (Previously Presented) A method according to claim 1, wherein the step of determining configuration attributes further comprises communicating with a network centralized configuration server.

10. (Original) A method according to claim 9, wherein the network centralized configuration server uses Simple Network Management Protocol (SNMP) to communicate.

11. (Previously Presented) A method according to claim 9, wherein the step of communicating with a network centralized configuration server comprises:

sending to the centralized configuration server a message containing the addresses of network neighbors on the subnet;

searching in a configuration database of the centralized configuration server for configuration attributes relevant to the first network device; and

forwarding the configuration attributes from the configuration database to the first network device.

12. (Previously Presented) A method according to claim 1, wherein the step of determining configuration attributes further comprises communicating with the second network device.

13. (Previously Presented) A method according to claim 12, wherein the step of communicating with the second network device uses a protocol based on Internet Control Message Protocol (ICMP) or User Datagram Protocol (UDP).

14. (Previously Presented) A method according to claim 1, wherein the step of determining configuration attributes comprises analyzing routing protocol control packets detected by the first network device.

15. (Previously Presented) An autoconfiguring data router connected to a communications network subnet having a second network data router, the autoconfiguring data router comprising:

a configuration determination module that determines configuration attributes for operably connecting the autoconfiguring data router to the subnet based on configuration information for the subnet detected by the autoconfiguring data router; and

an autoconfiguration module that configures the autoconfiguring data router according to the configuration attributes so that the autoconfiguring data router is operably connected to the subnet.

16. (Original) An autoconfiguring data router according to claim 15, wherein the autoconfiguration module configures the autoconfiguring data router automatically.

17. (Original) An autoconfiguring data router according to claim 15 wherein the autoconfiguration module configures the autoconfiguring data router using a guided process in which the autoconfiguration module interacts with a user and presents to the user suggested configuration choices based on the configuration attributes.

18. (Original) An autoconfiguring data router according to claim 17, wherein the autoconfiguration module accompanies the suggested configuration choices with an explanation to the user as to why the configuration choices have been suggested.

19. (Previously Presented) An autoconfiguring data router according to claim 15, wherein the network attributes comprise an Internet Protocol (IP) subnet mask determined based upon the configuration information unique to the subnet and derived from passively listening to router control traffic detected by the autoconfiguring data router at interfaces between the first network device and the autoconfiguring data router.

20. (Original) An autoconfiguring data router according to claim 15, wherein the configuration attributes comprise at least one of Dynamic Host Configuration Protocol (DHCP) forwarding data and DHCP server address.

21. (Previously Presented) An autoconfiguring data router according to claim 15, wherein the configuration attributes comprise virtual local area network (VLAN) information including tag identifications, types, protocols, addresses, and port-to-VLAN mappings.

22. (Original) An autoconfiguring data router according to claim 15, wherein the configuration attributes comprise at least one of Spanning Tree Group information, Simple Network Management Protocol (SNMP) server addresses, Open Shortest Path First (OSPF) timer information, Routing Information Protocol (RIP) broadcast timer information, and Virtual Router Redundancy Protocol (VRRP) information.

23. (Original) An autoconfiguring data router according to claim 15, wherein the configuration determination module communicates with a network centralized configuration server to determine the configuration attributes.

24. (Original) An autoconfiguring data router according to claim 23, wherein the network centralized configuration server uses Simple Network Management Protocol (SNMP) to communicate with the configuration determination module.

25. (Original) An autoconfiguring data router according to claim 15, wherein the configuration determination module receives relevant configuration attributes from the centralized configuration server .

26. (Original) An autoconfiguring data router according to claim 15, wherein the configuration determination module communicates with a second network data router to determine the configuration attributes.

27. (Original) An autoconfiguring data router according to claim 26, wherein the configuration determination module uses a protocol based on Internet Control Message Protocol (ICMP) or User Datagram Protocol (UDP) to communicate with the second network data router.

28. (Original) An autoconfiguring data router according to claim 15, wherein the configuration determination module analyzes routing protocol control packets detected by the autoconfiguring data router to determine the configuration attributes.

29. (Previously Presented) A computer network having at least one subnetwork, the at least one subnetwork having a plurality of data routers that communicate data packets over the network, the subnetwork including at least one autoconfiguring data router, the at least one autoconfiguring data router comprising:

a configuration determination module that determines configuration attributes for operably connecting the autoconfiguring data router to the subnet based on configuration information for the subnet detected by the autoconfiguring data router; and

an autoconfiguration module that configures the autoconfiguring data router according to the configuration attributes so that the autoconfiguring data router is operably connected to the subnet.

30. (Original) A computer network according to claim 29, wherein the autoconfiguration module configures the autoconfiguring data router automatically.

31. (Original) A computer network according to claim 29, wherein the autoconfiguration module configures the autoconfiguring data router using a guided process in which the autoconfiguration module interacts with a user and presents to the user suggested configuration choices based on the configuration attributes.

32. (Original) A computer network according to claim 31, wherein the autoconfiguration module accompanies the suggested configuration choices with an explanation to the user as to why the configuration choices have been suggested.

33. (Previously Presented) A computer network according to claim 29, wherein the network attributes comprise an Internet Protocol (IP) subnet mask determined based upon the configuration information unique to the subnet and derived from passively listening to router control traffic detected by the first network device at interfaces between the first network device and the subnet.

34. (Original) A computer network according to claim 29, wherein the configuration attributes comprise at least one of Dynamic Host Configuration Protocol (DHCP) forwarding data and DHCP server address.

35. (Previously Presented) A computer network according to claim 29, wherein the configuration attributes comprise virtual local area network (VLAN) information including tag identifications, types, protocols, addresses, and port-to-VLAN mappings.

36. (Original) A computer network according to claim 29, wherein the configuration attributes comprise at least one of Spanning Tree Group information, Simple Network Management Protocol (SNMP) server addresses, Open Shortest Path First (OSPF) timer information, Routing Information Protocol (RIP) broadcast timer information, and Virtual Router Redundancy Protocol (VRRP) information.

37. (Original) A computer network according to claim 29, wherein the configuration determination module communicates with a network centralized configuration server to determine the configuration attributes.

38. (Original) A computer network according to claim 37, wherein the network centralized configuration server uses Simple Network Management Protocol (SNMP) to communicate with the configuration determination module.

39. (Original) A computer network according to claim 37, wherein the configuration determination module receives relevant configuration attributes from the centralized configuration server .

40. (Original) A computer network according to claim 29, wherein the configuration determination module communicates with a second network data router to determine the configuration attributes.

41. (Original) A computer network according to claim 40, wherein the configuration determination module uses a protocol based on Internet Control Message Protocol (ICMP) or User Datagram Protocol (UDP) to communicate with the second network data router.

42. (Original) A computer network according to claim 29, wherein the configuration determination module analyzes routing protocol control packets detected by the autoconfiguring data router to determine the configuration attributes.

43. (Previously Presented) A computer program product for use on a computer system for configuring a first network device for connection to a communications network subnet having a second network device, the computer program product comprising a computer-usable medium having computer-readable program code thereon, the computer readable program code including:

program code for determining configuration attributes for operably connecting the first network device to the subnet based on configuration information for the subnet detected by the first network device; and

program code for configuring the first network device according to the configuration attributes so that the first network device is operably connected to the subnet.

44. (Original) A computer program product according to claim 43, wherein configuring the first network device is performed automatically by the autoconfiguration module.

45. (Original) A computer program product according to claim 43, wherein configuring the first network device is performed as a guided process in which the autoconfiguration module interacts with a user and presents to the user suggested configuration choices based on the configuration attributes.

46. (Original) A computer program product according to claim 45, wherein the suggested configuration choices are accompanied by an explanation to the user as to why the configuration choices have been suggested.

47. (Previously Presented) A computer program product according to claim 43, wherein the configuration attributes comprise an Internet Protocol (IP) subnet mask determined based upon the configuration information unique to the subnet and derived from passively listening to router control traffic detected by the first network device at interfaces between the first network device and the subnet.

48. (Original) A computer program product according to claim 43, wherein the configuration attributes comprise at least one of Dynamic Host Configuration Protocol (DHCP) forwarding data and DHCP server address.

49. (Previously Presented) A computer program product according to claim 43, wherein the configuration attributes comprise virtual local area network (VLAN) information including tag identifications, types, protocols, addresses, and port-to-VLAN mappings.

50. (Original) A computer program product according to claim 43, wherein the configuration attributes comprise at least one of Spanning Tree Group information, Simple Network Management Protocol (SNMP) server addresses, Open Shortest Path First (OSPF) timer information, Routing Information Protocol (RIP) broadcast timer information, and Virtual Router Redundancy Protocol (VRRP) information.

51. (Original) A computer program product according to claim 43, wherein the program code for determining configuration attributes further comprises program code for communicating with a network centralized configuration server.

52. (Original) A computer program product according to claim 51, wherein the network centralized configuration server uses Simple Network Management Protocol (SNMP) to communicate.

53. (Original) A computer program product according to claim 51, wherein the program code for communicating with a network centralized configuration server comprises:

program code for sending to the centralized configuration server a message containing the addresses of network neighbors on the subnet;

program code for searching in a configuration database of the centralized configuration server for configuration attributes relevant to the first network device; and

program code for forwarding the configuration attributes from the configuration database to the first network device.

54. (Original) A computer program product according to claim 43, wherein the program code for determining configuration attributes further comprises program code for communicating with the second network device.

55. (Original) A computer program product according to claim 54, wherein the program code for communicating with the second network device uses a protocol based on Internet Control Message Protocol (ICMP) or User Datagram Protocol (UDP).

56. (Original) A computer program product according to claim 43, wherein the program code for determining configuration attributes comprises program code for analyzing routing protocol control packets detected by the first network device.

57. (Previously Presented) An autoconfiguring data router connected to a communications network subnet having a second network data router, the autoconfiguring data router comprising:

means for determining configuration attributes for operably connecting the autoconfiguring data router to the subnet based on configuration information for the subnet detected by the autoconfiguring data router; and

means for configuring the autoconfiguring data router according to the configuration attributes so that the autoconfiguring data router is operably connected to the subnet.

58. (Original) An autoconfiguring data router according to claim 57, wherein the means for configuring the autoconfiguring data router operates automatically.

59. (Original) An autoconfiguring data router according to claim 57, wherein the means for configuring the autoconfiguring data router uses a guided process in which the means for configuring interacts with a user and presents to the user suggested configuration choices based on the configuration attributes.

60. (Original) An autoconfiguring data router according to claim 59, wherein the suggested configuration choices are accompanied by an explanation to the user as to why the configuration choices have been suggested.

61. (Previously Presented) An autoconfiguring data router according to claim 57, wherein the configuration attributes comprise an Internet Protocol (IP) subnet mask determined based upon the configuration information unique to the subnet and derived from passively listening to router control traffic detected by the first network device at interfaces between the first network device and the subnet.

62. (Original) An autoconfiguring data router according to claim 57, wherein the configuration attributes comprise at least one of Dynamic Host Configuration Protocol (DHCP) forwarding data and DHCP server address.

63. (Previously Presented) An autoconfiguring data router according to claim 57, wherein the configuration attributes comprise virtual local area network (VLAN) information including tag identifications, types, protocols, addresses, and port-to-VLAN mappings.

64. (Original) An autoconfiguring data router according to claim 57, wherein the configuration attributes comprise at least one of Spanning Tree Group information, Simple Network Management Protocol (SNMP) server addresses, Open Shortest Path First (OSPF) timer information, Routing Information Protocol (RIP) broadcast timer information, and Virtual Router Redundancy Protocol (VRRP) information.

65. (Original) An autoconfiguring data router according to claim 57, wherein the means for determining configuration attributes further comprises means for communicating with a network centralized configuration server.

66. (Original) An autoconfiguring data router according to claim 65, wherein the network centralized configuration server uses Simple Network Management Protocol (SNMP) to communicate with the means for communicating.

67. (Original) An autoconfiguring data router according to claim 65, wherein the means for communicating with a network centralized configuration server comprises:

means for sending to the centralized configuration server a message containing the addresses of network neighbors on the subnet;

means for searching in a configuration database of the centralized configuration server for configuration attributes relevant to the autoconfiguring data router; and

means for forwarding the configuration attributes from the configuration database to the autoconfiguring data router.

68. (Original) An autoconfiguring data router according to claim 57, wherein the means for determining configuration attributes further comprises means for communicating with the second network data router.

69. (Original) An autoconfiguring data router according to claim 68, wherein the means for communicating with the second network data router uses a protocol based on Internet Control Message Protocol (ICMP) or User Datagram Protocol (UDP).

70. (Original) An autoconfiguring data router according to claim 57, wherein the means for determining configuration attributes further comprises means for analyzing routing protocol control packets detected by the autoconfiguring data router.